II.   Amendments to the Specification

On page 1, the top of the page, please delete the title as filed and substitute therefore the following:

METHOD AND APPARATUS FOR GENERATING STABILIZED, ULTRA-SHORT LIGHT PULSES.

On page 1, please add the following heading after the title:

BACKGROUND OF THE INVENTION.

On page 6, please insert the following heading after the third paragraph:

BRIEF SUMMARY OF THE INVENTION

Please insert the following heading at the top of page 11:

BRIEF DESCRIPTION OF THE DRAWINGS

On page 11, please insert the following heading above the paragraph beginning "Although the operation of a stabilized pulse laser...":

DETAILED DESCRIPTION OF THE INVENTION

On page 41, at the top of the page, please amend the heading by deleting the word "PATENT" as follows: " ~~PATENT~~ CLAIMS"

On page 7, please delete the first full paragraph and substitute the following therefore:

These objects are solved with the processes and devices having the characteristics ~~of patent claims 1, 14, 15 and 16~~ as set forth in the appended claims. Advantages embodiments and applications of the invention are defined in the dependent claims.

On page 11, please delete the paragraph beginning with "Figs. 5 – " and substitute the following therefore Figs. 5 – 8 illustrations of phase coupling in the stabilization of a laser device according to the invention;

On page 22, please delete the paragraph beginning with the words "If the mode comb emitted at the output..." and substitute the following therefore:

If the mode comb emitted at the output of the fiber 201 is sufficiently broad and especially if it encompasses an entire frequency octave (f and 2f) or more, the multiple mode of the mode comb may be used as a reference frequency f_{ref}. This variation is shown in Figure 12 with dotted lines in elements 202', 207' and 241'. The element 202' is a dichroitic mirror, that diverts low frequencies of the mode comb and lets pass through high frequencies. One or more modes of the frequency comb are doubled in frequency with the SHG apparatus 241' (for example KDP or $KnbO_3$ crystal). The number of the doubled frequency modes depends on the parameters of the SHG apparatus. If the phase adjustment in the SHG apparatus is effective for example over 2 to 3 nm, up to 1000 modes may be doubled in frequency. Correspondingly, a large number of higher frequency modes of the mode comb may be taken into account with the beat measurement at the light sensitive element ~~321~~ 231. An advantageous increase in intensity of the beat measurement and with it increased accuracy in control loop I result.

On page 29, please delete the paragraph beginning with the words "The mode counter 250 functions according to ..." and substitute the following paragraph therefore:

The mode counter ~~250~~ 260 functions according to the following principle. For counting the modes, a thinning out of the closely neighboring modes within the frequency comb into a stretched out frequency range is provided, in which the modes may be measured with a commercially available wavemeter. To this end, the mode counter 250 contains a passive resonator with a free spectral range expanded in relation t the resonator of the laser device 200. A spectral range expanded 20 times is provided for, for example. In this resonator correspondingly only every twentieth mode is transmitted so that a stretched ode separation is formed (for example 1.5 GHz). This corresponds in a time picture to a twenty times lower pulse separation τ. The same regulation with the reference frequency generator 240 and its doubled frequency signal (after 241) follows with the thinned out frequency comb as with the original comb corresponding to the reference laser control loop. Two beat signals are produced whose separation may be evaluated with the wavemeter. The frequency positions of the reference modes and the number of modes lying between them may be deduced through this frequency measurement and the known mode thinning in the passive resonator of the mode counter 260.